



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,351	12/06/2001	Robert S. Creager	2001-052-TAP	5221

7590 08/13/2003

Wayne P. Bailey
Storage Technology Corporation
One Storage Tek Drive
Louisville, CO 80028-4309

EXAMINER

TREMBLAY, MARK STEPHEN

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,351

Applicant(s)

CREAGER ET AL.

Examiner

Mark Tremblay

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,9,12,14-16 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,9,12,14-16 and 20-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Applicant: Creager et al.

Filing date: 12/6/01

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by IBM Technical Disclosure Bulletin, Vol 37, Issue #3, pages 205-206 ("IBM" hereinafter). IBM discloses a method for detecting incorrect cartridge orientation in an automated media library, comprising:

reading label information from a cartridge label on a cartridge; and

determining whether the cartridge is correctly oriented based on the label information,

wherein the label information comprises orientation of characters on the label (reverse or forward).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-5, 9, 12, 14-16, 20-24 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent #4,450,385 to Ellis ("Ellis" hereinafter) in view of IBM. Ellis, filed in August 1993 discloses a method of determining the status of cassettes in a tape library wherein the presence, or absence of cartridges is noted, in addition to whether the number is unreadable. Ellis

doesn't teach procedures for identifying upside down labels. IBM teaches a procedure for dealing with upside down labels, and taking appropriate action. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the procedure for determining upside down labels of the IBM disclosure in the Ellis disclosure, because the bar code reader can be "enhanced" to report this information, thus detecting inadvertent placements of the cartridges upside-down. The appropriate "corrective action" suggested by IBM is pretty clearly spelled out in Ellis.

Response to Arguments

Some of Applicant's remarks appear to misunderstand the purpose of the IBM Technical Disclosure Bulletin. Bar code readers are designed to read the label information, and output it through an interface in a format useful and intelligible to the device to which it is connected. For example, the Examiner has a Welch Allyn Scanteam 3400 CCD bar code reader at his desktop workstation for scanning in patent application bar codes. The 3400 is connected in a "wedge" configuration with the examiner's keyboard, to the keyboard port on the workstation. Therefore, if the output of the 3400 is to be useful to the workstation, it must output ascii characters using the same signaling conventions a PC keyboard uses. It cannot output bar width information, and rely on the computer to decode it, as some early bar code readers did. The Welch Allyn 3400 performs an operation that is convenient to many users: it outputs the numbers in their proper order regardless of whether it reads the label upside-down or right side up. So, if the Examiner reads the bar code of the instant application right side up, the output of the 3400 is: "10003351". If Examiner holds the same bar code upside down and reads it, the output of the 3400 is: "10003351". Even though the characters encoded in the bar code were presented to the bar code in the order: "15330001", the 3400 correctly recognized the start and stop codes, and that the label was being held upside down, and correctly identified which application the Examiner was holding. Otherwise, errors would get introduced into the tracking system used by PTO, or any other tracking system that uses the 3400.

Most bar code readers operate in this fashion. The reader knows whether the label is right side up, or upside down, but never passes along this information to the system it is connected to,

because it is typically seen as irrelevant. Who cares whether the examiner was holding the patent application upside down when the bar code was scanned? It's useless information.

Not so with the automated tape libraries which are the subject of the IBM TDB. Anyone who's ever used a cassette player or VHS video tape player knows that the orientation of the tape matters. A VHS tape goes in a VCR only one way, and an audio tape plays different songs depending on the way it is loaded. An automated tape library doesn't have a person to look at the orientation of the tape. If the tapes were placed in the machine by a person, they might be loaded incorrectly, because people make mistakes. How will the machine recover? The IBM TDB teaches how. Change the bar code reader to make it pass along the orientation information, which it normally keeps to itself. Then, the orientation of the tape will be known, by knowing the orientation of the label. That way, the tape library won't attempt to load a tape in the tape reader upside down, which would cause a mal-function.

All of this should be clear to the skilled artisan familiar with bar code readers and automated tape libraries, when reading the IBM TDB.

The Applicant argues the 35 U.S.C. § 102 rejection based on the idea that IBM does not use "one of a location of a barcode and orientation of characters on the label." The Examiner respectfully disagrees. If a label is upside down, the characters will be in one orientation (reverse) and in another orientation (forward) when the label is right side up. Anyone skilled in the art would immediately recognize this.

The Applicant argues the 35 U.S.C. § 103 rejection by arguing first that Ellis does not teach determination of label orientation. There is no dispute about this, although IBM was relied upon for this teaching.

Applicant repeats the arguments about IBM not being applicable as noted above. For the same reasons, the Examiner respectfully disagrees. Applicant also argues that, "Many bar codes are symmetrical." The Examiner respectfully disagrees. First, this is not a valid argument against the combination of teachings. If the bar code contemplated by IBM were symmetrical, the reader could not determine any forward or reverse scanning. For this reason, the arguments about

symmetrical bar codes are unpersuasive. Additionally, the Examiner is aware that many bar codes are not symmetrical. A few bar codes in the seventies were proposed that were symmetrical, but these were never used extensively. The most common bar codes, UPC, Code 3 of 9, PDF 417, EAN, 2 of 5, Codabar, Code 128, Plessy Code, Code 49, Matrix Code, Array Code, and all of the newer two dimensional codes are ALL non-symmetric. If Applicant is aware of any current usage of symmetrical bar codes, Applicant should supply some specific details to support this argument. However, all of the codes just mentioned by Examiner are standard codes in the public domain, and requisite knowledge for a person to be considered skilled in the art. Applicant's patent application is tracked using 3 of 9, and groceries and commercial products purchased using UPC. Neither is symmetrical. These are by far the two most common codes, and it is 3 of 9 that would be expected to be used in a tape library, because of it's highly flexible allowable aspect ratio, variable length, and alpha-numeric capability.

Applicant also argues that Ellis teaches only a gripper operation to physically check a cell when a mark is not detected, and therefore doesn't teach any corrective action having to do with the orientation. While this may be true, it is not a persuasive argument against what the combined teachings suggest. The "corrective action" suggested by IBM leaves a pretty obvious choice: manually or automatically re-orienting the cartridge. Ellis suggests that the gripper be used to check the cartridge, and mark the status based on the checking step, if there is a problem with the way the label is read. IBM teaches the determination of a problem using information gleaned in the label reading process. It is a natural combination of teachings.

Voice

Inquiries for the Examiner should be directed to Mark Tremblay at (703) 305-5176. The Examiner's regular office hours are 10:30 am to 7:00 pm EST Monday to Friday. Voice mail is available. If Applicant has trouble contacting the Examiner, the Supervisory Patent Examiner, Michael Lee, can be reached on (703) 305-3503. Technical questions and comments concerning PTO procedures may be directed to the Patent Assistance Center hotline at 1-800-786-9199 or (703) 308-4357.



MARK TREMBLAY
PRIMARY EXAMINER

August 8, 2003